

DW 04-020

FRYEBURG WATER COMPANY

Investigation into Water Quality

Order Regarding Replacement of Water Main

ORDER NO. 24,647

July 18, 2006

Appearances: Upton & Hatfield, LLP by Russell F. Hilliard, Esq. on behalf of Fryeburg Water Company; Office of Consumer Advocate by F. Anne Ross, Esq. and Rorie Hollenberg, Esq. on behalf of residential ratepayers; William Black, Esq. on behalf of the Maine Public Advocate; and Suzanne Amidon, Esq. on behalf of Commission Staff.

I. PROCEDURAL BACKGROUND

On February 24, 2004, the New Hampshire Public Utilities Commission (Commission) opened this docket to conduct a formal investigation pursuant to RSA 365:5 of the quality of service being provided by Fryeburg Water Company (Fryeburg). Although the majority of Fryeburg's customers are located in Maine, the Company serves approximately 67 customers in East Conway, New Hampshire. At earlier stages of the proceeding, the Commission took certain actions relating to financial, operational and regulatory compliance issues.¹ In Order No. 24,471 (June 2, 2005), the Commission determined that the likely source of water quality issues related to a 7,600-foot unlined cast iron main installed in 1883 that delivers water to Fryeburg's customers on the East Conway side of the Saco River. *Inter alia*, Order No. 24,471 also commenced a phase of the proceeding dedicated specifically to identifying and implementing engineering solutions to the water quality problems.

Thereafter, the Commission issued Order No. 24,559 (December 9, 2005) which scheduled a prehearing conference for January 23, 2006, to hear Fryeburg's "definitive and

¹ For a more detailed procedural background, *see* Order No. 24,559 (December 9, 2005), Order No. 24,594 (March

detailed testimony” regarding the implementation of an engineering improvement plan to address the water quality issues experienced by East Conway customers as a result of problems with the 1883 cast iron transmission main. Following the prehearing conference, which took place as scheduled, the Commission issued Order No. 24,594 (March 3, 2006) which, among other things, required Fryeburg to file periodic reports with the Commission regarding the search for an engineering or other solution to water quality problems experienced by the Company’s customers in East Conway. In addition, the Commission scheduled a status conference for May 3, 2006, to hear Fryeburg’s position on how to address the engineering problems associated with the main.

The status conference took place as scheduled. Following the status conference, the Commission Staff (Staff), the Office of Consumer Advocate (OCA), and Fryeburg customers Robert and Nancy Swett filed a letter with the Commission recommending the replacement of the 1883 cast iron main that serves the East Conway customers of Fryeburg. The Town of Conway also filed a letter making the same recommendation and also offering specific suggestions for objective oversight of the project, the bidding process for the work, Commission review and deadlines for the various components of the project.

On June 5, 2006, Fryeburg filed a letter with minutes of the May 24, 2006 meeting of the Company’s board of directors attached, along with a copy of a June 1, 2006 letter from the engineering firm of Woodard and Curran, Inc. (Woodard) regarding the replacement of the main between Fryeburg, Maine and East Conway, New Hampshire. The minutes indicate that Fryeburg’s board of directors approved a motion to authorize, and directed Fryeburg’s president

to seek financing of up to \$260,000 and seek Maine Public Utilities Commission approval for, installation of a new four-inch main to replace the 1883 cast iron main.

Following receipt of this new information, the Commission issued Order No. 24,633 (June 8, 2006) which scheduled a status conference for July 6, 2006, regarding Fryeburg's proposal to replace the pipe. The Commission also instructed Fryeburg to provide details of its plans to obtain financing for the project and any approvals from authorities in Maine. Fryeburg was also directed to provide information about the selection of a qualified engineering firm to design and implement the project, and a timetable for construction. Finally, the Commission directed Fryeburg to make representatives of Woodard available to the Commission's water engineer, Douglas Brogan, so that Mr. Brogan could have a sufficient understanding of the project to offer an expert opinion at the July 6, 2006 status conference.

On June 9, 2006, the OCA filed a copy of a letter from the Maine Public Advocate Office to the Maine Public Utilities Commission regarding the minutes of Fryeburg's May 24 board of directors' meeting. On June 23, 2006, Staff filed a copy of a letter from Mr. Brogan to Woodard which addressed engineering issues related to future water demands in East Conway, sizing of the replacement main and other matters where Mr. Brogan had ongoing concerns. The status conference was held as scheduled.

At its July 7, 2006 Commission meeting, the Commission deliberated orally the issues raised during the July 6, 2006 status conference. The Commission passed a motion to approve the plan for replacing the 1883 water main subject to eight specific conditions. It was noted that a written order would be issued memorializing the deliberations and that the written order would

be controlling to the extent there were any conflict between the oral deliberations and the written order.

II. POSITIONS OF THE PARTIES

A. Fryeburg Water Company

Ron Hidu, an engineer with Woodard, testified on behalf of Fryeburg. Mr. Hidu testified that Woodard has provided engineering work for Fryeburg for two years. Mr. Hidu stated that Woodard had come to the same conclusion as Weston and Sampson, Fryeburg's prior engineering firm, and recommended replacing the pipe. He offered that he had worked on the project plan, and had several informal communications with Mr. Brogan via e-mail and telephone calls in an attempt to reach agreement with Staff regarding the specifications for the pipe and the manner of construction.

Mr. Hidu indicated that he and Staff had resolved most of the open issues prior to the hearing. Mr. Hidu stated that initially Fryeburg had considered installing a 4-inch pipe, but that Fryeburg now agreed to install a 6-inch pipe, as recommended by Staff. Mr. Hidu also noted that Fryeburg had agreed to install a pipe with slightly heavier walls than originally proposed, again at Staff's recommendation. Upon questioning, Mr. Hidu identified the type of pipe to be used as 200 psi Pressure Class SDR 21 PVC pipe, with the exception of the horizontal drilling under the river and under East Conway Road. Mr. Hidu indicated those portions of the main would be 6-inch SDR 11 HDPE. He further indicated that the replacement pipe would have valves installed on both sides of the Saco River, and a flushing device installed at its end in East Conway.

Mr. Hidu stated that Fryeburg had also agreed to bury the pipe at a slightly greater depth than originally proposed. According to Mr. Hidu, the pipe would be buried 4 feet deep below the bottom of the ditch along the road and 5 ½ feet deep elsewhere.

Mr. Hidu asserted that the replacement pipe would extend from the end of Drift Road in Fryeburg, Maine across agricultural property and under the Saco River to the junction with the water mains in East Conway, New Hampshire. He indicated that Fryeburg planned to replace the pipe in August. He said the next steps would be to notify Dig Safe and to secure the appropriate permits from both the Maine and New Hampshire departments of transportation to run the pipe along the road, and from the Saco River Corridor Commission to run the pipe under the river. Mr. Hidu opined that the permits could be obtained in four to six weeks. He estimated that it would take two weeks to install the pipe.

On cross-examination, Mr. Hidu was asked about the Company's intent to replace the pipe at Drift Road in Fryeburg, Maine, which is the same vintage as the pipe crossing the Saco River and is part of the transmission main that provides the water supply to East Conway. Mr. Hidu indicated that Fryeburg intended to postpone the replacement of the pipe under Drift Road until 2008 to avoid the additional cost and potential construction difficulties at this time.

Fryeburg's president, Hugh Hastings, testified regarding the progress the Company had made in securing financing for the pipe replacement project. Mr. Hastings indicated that Fryeburg would be borrowing money for the pipe replacement project. He testified that he had formally sought approval of the financing from the Maine Public Utilities Commission, but had to file new information with that agency and did not know the status of the matter. He stated that he had filed for permission to borrow \$250,000 for the pipe replacement project. Mr. Hastings

also expressed the opinion that the Drift Road pipe replacement was not necessary because the pipe did not produce any significant water quality problems.

B. Office of Consumer Advocate

The OCA expressed appreciation that Fryeburg had agreed to replace the 1883 cast iron main. The OCA deferred to Staff's expertise regarding the pipe specifications and the depth of burial. The OCA expressed the view that replacement of the entire pipe, including the Drift Road pipe, in a single construction project made sense, but again deferred to Staff.

C. Commission Staff

Douglas Brogan, the Commission's water engineer, testified on behalf of Staff. Mr. Brogan explained that Fryeburg had initially resisted using the class of PVC pipe recommended by Staff. Mr. Brogan pointed out that the Department of Environmental Services (DES) uses the American Water Works Association (AWWA) standard which would require the use of class DR 18 pipe, which costs approximately \$4.68 per foot. Fryeburg initially proposed to use SDR 26 pipe, which costs approximately \$3.00 per foot but does not meet AWWA standards. Mr. Brogan noted that the DES had ceded jurisdiction of the East Conway portion of the water system to the Maine Drinking Water Program. Although Mr. Brogan stated his preference for the DR 18 pipe, he concluded that class SDR 21 pipe, which costs approximately \$3.66 per foot and falls between DR 18 and SDR 26 pipe for strength, would adequately serve the function of the main.

Mr. Brogan testified that the agreement regarding the depth of the pipe was also a source of disagreement between the Company and Staff. He pointed out that the ditch, where the pipe would be buried at 4 feet, covers nearly half of the project. Mr. Brogan testified that the

Handbook of PVC Pipe recommended that pipe be buried 6 to 12 inches below the normal frost depth line. Mr. Brogan testified that the Handbook included a frost penetration map indicating a frost penetration of 3 ½ feet for Conway. Mr. Brogan pointed out that, while the ditch itself offered some additional protection, burial at 4 feet would just meet the minimum requirement. In light of that and other sources reviewed, Mr Brogan recommended that Fryeburg place rigid insulation over the pipe in the ditch line as an added measure to protect the pipe.

Mr. Brogan expressed some concern about the Company's intention to defer the Drift Road construction for two years, but suggested that replacement of the pipe from the end of Drift Road to East Conway should solve 90 percent of the water quality problems in East Conway. Mr. Brogan also recommended that a qualified inspector be employed during the actual construction to assure that Fryeburg's contractor complies with all specifications. In conclusion, Mr. Brogan characterized the Company's willingness to go forward with the project this year as a welcome development following a great deal of effort by all.

III. COMMISSION ANALYSIS

We review the Company's proposal and Mr. Brogan's recommendations in light of our obligation pursuant to RSA 374:1 and RSA 374:3 to exercise the general supervision of public utilities and their facilities so as to assure that service is "reasonably safe and adequate and in all other respects just and reasonable." In the exercise of this authority, and after a careful review of the record, we are satisfied that Mr. Brogan thoroughly investigated the matter of replacing the pipe and we accept his recommendations. We find that replacement of the water main from the end of Drift Road to East Conway in 2006, while deferring the Drift Road segment to 2008,

subject to the conditions set forth below, is reasonably designed to alleviate the water quality problems investigated in this proceeding.

The water main shall be built consistent with the following specifications:

- 1) The entire length of the 1883 cast iron transmission main shall be replaced beginning at the westerly end of Drift Road (leaving approximately 500 feet of 1883 main under or along Drift Road for future replacement);
- 2) The replacement pipe shall be 8" Pressure Class 200 SDR 21 PVC pipe from the end of Drift Road to a tee and hydrant east of the Saco River, and 6" Pressure Class 200 SDR 21 PVC pipe the remainder of the way to East Conway, except at horizontal drilling sections under the Saco River and East Conway Road/Route 113 in East Conway, NH, where the pipe shall be 6" SDR 11 HDPE;
- 3) The pipe shall be buried with a minimum of 4 feet of cover where it is placed under the ditch along River Road (Route 113) and a minimum of 5½ feet of cover elsewhere;
- 4) Where the pipe is buried with less than 5½ feet of cover, a minimum of 1 inch thick by 2 foot wide rigid insulation board shall be placed over the pipe in the trench prior to completion of backfilling;
- 5) There shall be valves installed in the replacement main on either side of the river crossing and at the end of the replacement main where it ties into existing water lines at the intersection of River Road (Route 113) and East Conway Road in East Conway, NH. The latter location should include a flushing device;

Our principal remaining concern is that construction be accomplished as scheduled, and is performed in a competent manner by qualified contractors. We share Mr. Brogan's opinion that continued oversight of this project is necessary. Therefore, we direct Fryeburg to engage the services of a qualified independent inspector, which may be a member of its consulting engineering firm, to monitor and inspect the construction work to insure compliance with the specifications as negotiated between Staff and Woodard. In addition, we direct Fryeburg to retain the services of an engineer in relation to the project, and require that engineer to provide

weekly status reports to Commission Staff regarding the progress of the project until the project is complete. Such reporting shall include the qualifications of any proposed contractors.

In addition, we note that in Order No. 24,407 (November 19, 2004) the Commission required, as a means of addressing the water quality problems in East Conway, that Fryeburg hold in escrow all revenues collected from New Hampshire customers for improvement of the infrastructure of the water system, most notably the 1883 cast iron main. Inasmuch as a reasonable proposal has been made to replace the water main that has been identified as the principal source of the water quality problems in East Conway, we find that it is appropriate to release the funds from the escrow and to cease future deposits in this escrow account. Monies currently in the account may be used by Fryeburg to pay for engineering and construction services related to the water main replacement, legal and engineering costs related to this proceeding, or such other purpose as is reasonably related to the water main replacement. Finally, we point out that Fryeburg is required to continue to provide bottled water as previously directed, until the time that the replacement water main, as described herein, is placed into service.

Based upon the foregoing, it is hereby

ORDERED, that Fryeburg replace the entire length of the 1883 cast iron transmission main beginning at the westerly end of Drift Road, leaving the remaining 500 of pipe along Drift Road for later replacement, subject to the specifications described herein; and it is

FURTHER ORDERED, that Fryeburg is no longer required to deposit revenues collected from its customers in East Conway into the escrow account established pursuant to Order No. 24,407; and it is

FURTHER ORDERED, that the monies held in escrow pursuant to Order No. 24,407 may be released for the purpose of paying engineering and construction services related to implementation of this water main replacement project, legal and engineering costs related to this proceeding, or such other purpose as is reasonably related to the water main replacement; and it is

FURTHER ORDERED, that Fryeburg shall comply with the reporting and other requirements indicated in the body of this order.

By order of the Public Utilities Commission of New Hampshire this eighteenth day of July, 2006.

Thomas B. Getz
Chairman

Clifton C. Below
Commissioner

Attested by:

Debra A. Howland
Executive Director & Secretary